17(3)

AUTHORS: Emanuel', N. M., Corresponding   SOV/20-125-2-49/64
                Member, AS USSR, Lipchina, L. P., Pelevina, I. I.

TITLE: Selective Decrease of the RNA Content in Tumor Cells and Their
                Loss of the Ability to be Grafted when Acted upon by Chain-re-
                action Inhibitors in Vitro (Izbiratel'noye umen'sheniye soder-
                zhaniya RNK v opukholevykh kletkakh i poterya imi sposobnosti
                privivat'sya pri vozdeystvii in vitro ingibitorov tsepnykh
                reaktsiy)

ABSTRACT: The authors found a principal possibility of the inhibition
                and retrogression in the formation of tumors by use of the
                aforesaid inhibitors (Ref 1). The activity of important
                redox ferments in tumor cells is suppressed by propyl gallate
                in vitro (Ref 2). Thus these cells are deprived of the
                energy they need for intense biosynthetic processes which
                are typical of blastoma growth. Among these processes the
                biosynthesis of ribonucleic acid (RNA) is of special interest,
                which, according to modern views, forms a matrix for albumin
Card 1/3   synthesis (Ref 3). There is a certain connection between the

Selective Decrease of the RNA Content in Tumor Cells   SOV/20-125-2-49/64
and Their Loss of the Ability to be Grafted when Acted upon by Chain-reaction
Inhibitors in Vitro

intensities of albumin synthesis and the re-formation of
RNA. Also rapidly growing cells of tumor are known to possess
a high RNA content (Refs 4-6). There are also some indications
(Ref 7) that the decrease of RNA content below a certain
value stops albumin synthesis. In the present paper it was
found that a considerable selective decrease of the RNA con-
tent in tumor cells is caused by propyl gallate (as compared
to a regular cell) so that these cells lose the capability
of being implanted. Ehrlich- (Erlikh-) cancer of mice, care-
fully minced tissues of leucosis mice, Brown-Pierce- (Braun-
Pirs-) tumor of rabbits, acridine sarcoma of mice, sarcoma
45 of rats and Rous-sarcome of hens were used for the ex-
periments. Already after an action of 0.75 % propyl gallate
solutions for 15-30 min neither plasm RNA nor nuclear RNA
is visible under the luminescence microscope (Fig 1 a,b).
The change of the RNA content are reversible and can be
eliminated to a certain extent (Fig 1, v). Experiments with
sound liver cells have shown that the inhibitor (0.15 %)
Card 2/3   insignificantly reduces the RNA content within a short time;

Selective Decrease of the RNA Content in Tumor Cells   SOV/20-125-2-49/64
and Their Loss of the Ability to be Grafted when Acted upon by Chain-reaction
Inhibitors in Vitro

on the other hand, a complete adaptation of the cells follows
and the regular state is restored (Fig 2 a,b). Thus it was
possible to draw the important conclusion on the selective
effect of propyl gallate on tumor cells, which explains the
therapeutical effect of the inhibitor in vivo without
damage of the organism as a whole. The cells of the enumerated
tumors are therein completely deprived of the capability of
implantation. If they are washed out with physiological
common salt solution, this lost capability is restored. There
are 2 figures and 8 Soviet references.

SUBMITTED: November 25, 1958

Card 3/3

17(3)

AUTHORS: Emanuel', N. M., Corresponding Member AS USSR, SOV/20-125-5-53/61
Lipchina, L. P.

TITLE: The Loss of the Blastomagenic Properties of the Virus of Rows'
            Sarcoma Under the Action of Propylgallate (Poterya blastomagennykh
            svoystv virusa sarkomy Rousa pri vozdeystvii propilgallata)

ABSTRACT: Several malignant tumors are known which can be revaccinated not
            only by the transplantation of tumor cells, but also by the
            introduction of filtrates of tumor tissues free from cells. This
            capacity vanishes after the influence of one of the inhibitors of
            the oxidative chain processes, of propylgallate (Ref 1). This does,
            however, not occur in consequence of the protein denaturation. The
            cells from which the inhibitor was washed out with physiological
            sodium chloride solution become anew blastomagenic. This is as well
            the case with cells (Ref 2) of such tumors which can be revaccinated
            by means of filtrates free from cells (Rows' sarcoma of fowls,
            mouse leucosis). The authors are with respect to the rôle of the
            free radicals in the growth processes of the tumor (Ref 3) of the
            opinion that the spreading of the virus takes in many cases place
Card 1/3   by the transformation of the cell cytoplasm, not by separation

The Loss of the Blastomagenic Properties of the Virus of Rows' SOV/20-125-5-53/61
Sarcoma Under the Action of Propylgallate

(Ref 4). In such cases the progressive virus propagation has a
character similar to the nonsteady chemical processes which are
stimulated by free radicals (Ref 5). The references 6,7 deal with
the possible autocatalytic character of the virus spreading. A
slight inactivation of the virus by the oxidation with oxygen is
as well interesting (Ref 8). All that may prove free-radical
character of the virus particles. Thus may be assumed that the loss
mentioned in the title after the influence of the inhibitors is
related to the loss of the free-radical properties by the virus.
As a consequence of this may be assumed that an inactivation of
the tumor forming viri and the loss of the blastomagenic properties
of filtrates free from cells is possible by the influence of
inhibitors of the free-radical (chain) processes. The addition of
propylgallate did not cause abrupt shifts of the pH-value in the
experiments of the authors (it remained between 6.7 and 6.9). The
filtrates (control with 1:1 physiological sodium chloride solution
and experiment with propylgallate in an equal solution: 0.75, 0.15,
and 0.075%) were kept 30 minutes in the propylgallate solution on
ice. Experimental- and control material was at the same moment

Card 2/3   injected into the right or left wing respectively of one and the

The Loss of the Blastomagenic Properties of the Virus of   SOV/20-125-5-53/61
Rows' Sarcoma Under the Action of Propylgallate

same fowl. The latent period up to the formation of the tumor
took 7-12 days in the case of the filtrate without propylgallate.
The fowls died after 18-20 days. As a rule, no tumor was produced
in the case of a filtrate inhibited with 0.75% propylgallate
(Fig 1,a,b). Only 3 of 30 fowls had tumors the rate of growth of
which was, however, to a great extent inhibited (pea-sized instead
of chicken egg-sized like in the control). 0.15% propylgallate lead
to an inhibited tumor formation, whereas 0.075% was inactive.
Finally the authors make the attempt of interpreting the obtained
results. Propylgallate suppressed the activity of the redox ferments,
e. g. of the dehydrases. R. M. Radzikhovskaya helped in this
investigation. There are 1 figure and 14 references.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of
Chemical Physics of the Academy of Sciences, USSR)

SUBMITTED: February 11, 1959

Card 3/3

LIPCHINA, L.P., AFANASYEV G.G. (USSR)

"Cyticgemical Changes in a Cancer Cell Culture Produced by Radical-Chain Reaction Inhibitors."

Report presented at the 5th Int'L. Biochemistry Congress, Moscow, 10-16 Aug. 1961.

LIPCHINA, L. P., and PELEVINA, I. I. (USSR)

   "Suppression of the Activity of Enzymes of the Succinoxidase System
   by Inhibitors of Free-Radical Processes."

Report presented at the 5th International Biochemistry Congress,
Moscow, 10-16 Aug 1961

LIPCHINA, L. P. (USSR)

"The action of free-radical reaction inhibitors on tumour cells."

report submitted for the European Conference on Tumor Biology (VICC),
Warsaw, Poland
22-27 May 1961

Lipchina, M. S.-Inst. of Chemical Physics. Vorobyevskoye Chaussée 2, Moskva,
V-133

KALMANSON, A.E.; LIPCHINA, L.P.; CHETVERIKOV, A.G.

Electron paramagnetic resonance study of the interaction of tumor
and normal cells with semiquinone ion radicals originating from the
inhibitors of free-radical processes. Biofizika 6 no.4:410-423 '61.
(MIRA 14:7)

1. Institut khimicheskoy fiziki AN SSSR.
          (CANCER)   (PARAMAGNETIC RESONANCE AND RELAXATION)
                    (QUINONES)

YELKHOVSKAYA, Ye.S.; KALMANSON, A.E.; LIPCHINA, L.P.; TVERITINOV, V.N.;
        CHETVERIKOV, A.G.

Difference in the sensitivity to propl gallate in tissues of hepatoma
and normal liver. Dokl. AN SSSR 139 no.4:996-998 Ag '61.   (MIRA 14:7)

1. Institut khimicheskoy fiziki AN SSSR i Moskovskiy gosudarstvennyy
universitet im. M.V. Lomonosova. Predstavleno akademikom V.N.
Kondrat'yevym.
                    (GALLIC ACID)   (LIVER--TUMORS)

PELEVINA, I.I.; LIPCHINA, L.P.

Effect of substances inhibiting free-radical reactions on the
activity of enzymes of the succinic oxidase system. Dokl.
AN SSSR 140 no.5:1199-1200 0 '61.   (MIRA 15:2)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno
akademikom V.N.Kondrat'yevym.
                        (Succinic oxidase)
                        (Radicals(Chemistry))

KALMANSON, A.E.; LIPCHINA, L.P.; CHETVERIKOV, A.G.

Difference in the sensitivity to propylgallate in proliferating
and nonproliferating tissues. Dokl. AN SSSR 141 no.1:230-
232 N '61.   (MIRA 14:11)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno akademikom
V.N.Kondrat'yevym.
                  (Gallic acid)
                  (Oxidation, Physiological)
                  (Radicals(Chemistry))

YELKHOVSKAYA, Ye.S.; LIPCHINA, L.P.; CHETVERIKOV, A.G.

Interaction of propylgallate with the Rous's sarcoma virus
adsorbed on erythrocytes and stromas. Dokl. AN SSSR 142
no.2:465-467 Ja '62.   (MIRA 15:2)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno
akademikom V.N.Kondrat'yevym.
            (Gallic acid)
            (Viruses)

S/020/63/148/005/026/029
B144/B186

AUTHORS: Afanas'yev, G. G., Lipchina, L. P., Pelevina, I. I.

TITLE: Sensitization of tumor cells to ionizing irradiation by
              inhibitors of radical reactions

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 5, 1963, 1199-1201

TEXT: To confirm the assumption that inhibitors (In) of radical reactions
selectively sensibilize tumor cells to gamma irradiation, their effect com-
bined with Co irradiation was studied in the ascitic cells of mice in-
oculated with Ehrlich cancer. In in-vitro tests propyl gallate (PG) was
added 15 min before or after the irradiation. This increased the percentage
of aberrations from 9 to 17 %; with 800 r irradiation it was 41.4 %. 800 r
irradiation 15 min after PG addition resulted in 97.7 % aberrations, while
70 % were found when PG was added after irradiation. In-vivo tests were
conducted by administering 4(N,N-di-(β-hydroxyethyl)-amino-methyl)-1,2-di-
tert-butyl phenol (Ambunol) im. or intraperitoneally, 45 min before irradia-
tion with 200, 400 or 800 r. The aberrations were counted in smears taken
24, 48, and 72 hrs after irradiation. In consistency with data published

Card 1/2

Sensitization of tumor cells to...

S/020/63/148/005/026/029
B144/B186

for Synkavit, im. administration had no sensibilizing effect. On intra-peritoneal injection of 70 mg/kg In and 400 r irradiation, the number of aberrations was equal after 48 hrs and higher after 72 hrs than after a dose of 800 r without In. The formula $100 - [(100 - P_{In})(100 - P_r)/(100 - P_o)]$ is proposed, where P_o is the number of spontaneous aberrations, P_{In} the number of aberrations under In effect, and P_r the number of radiation-induced aberrations. The theoretical additive numbers of aberrations ob-tained from this formula were much lower than those found experimentally. Thus it was confirmed that inhibitors of free-radical reactions enhance the radiosensitivity of tumor cells. There are 2 tables.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR); Gruppa I. A. Kassirskogo pri Akademii meditsinskikh nauk SSSR (I. A. Kassirskiy's Group at the Academy of Medical Sciences USSR)

PRESENTED: July 30, 1962, by N. M. Sisakyan, Academician

SUBMITTED: July 23, 1962

Card 2/2

PELEVINA, I.I.; ANDREYEV, V.M.; LIPCHINA, L.P.; EMANUEL', N.M.

kinetic characteristics of the activity suppression in enzymes of the succinic oxidase system by the inhibitors of radical processes. Dokl. AN SSSR 148 no.6:1408-1411 F '63.   (MIRA 16:3)

1. Institut khimicheskoy fiziki AN SSSR. 2. Chlen-korrespondent AN SSSR (for Emanuel').
                    (Enzymes) (Inhibition (Chemistry))

AFANAS'YEV, G.G.; LIPCHINA, L.P.; PELEVINA, I.I.

Sensibilization of tumoral cells to the action of ionizing radiation
caused by the inhibitors of radical reactions. Dokl. AN SSSR 148
no.5:1199-1201 F '63.   (MIRA 16:3)

1. Institut khimicheskoy fiziki AN SSSR i Gruppa I.A.Kassirskogo
pri AMN SSSR. Predstavleno akademikom N.M.Sisakyanom.
   (GAMMA RAYS--PHYSIOLOGICAL EFFECT) (CANCER RESEARCH)
                    (INHIBITION (CHEMISTRY))

FRANKFURT, O.S.; LIPCHINA, L.P.; EMANUEL', N.M.

Effect of inhibitors-antioxidants (phenols) on the life cycle of Ehrlich's ascites carcinoma cells. Dokl. AN SSSR 153 no.3:699-702 N '63.   (MIRA 17:1)

1. Institut khimicheskoy fiziki AN SSSR. 2. Chlen-korrespondent AN SSSR (for Emanuel').

*

ACCESSION NR: AP4010764   S/0020/64/154/001/0207/0209

AUTHORS: Frankfurt, O.S.; Lipchina, L.P.
(presented by N.M. Sisakyan, Academician, on 7.17.1963)

TITLE: Action of x-radiation on the cells of the Ehrlich ascite carcinoma as revealed by the radioautography method

SOURCE: AN SSSR. Doklady*, v. 154, no. 1, 1964, 207-209

TOPIC TAGS: ascite carcinoma, cancer cytology, mitotic activity, radiomimetics, timidine h three, cancer inhibitors

ABSTRACT: This study is a further development of a previous work by the authors (same journal 153, Nos. 3 and 4) concerning inhibitors of radical reactions and alkalizing compounds causing considerable changes in the life cycle of cancerous cells. Investigation results of x-radiations are inconsistent and prompted the present study. Mice of the BALB strain were injected with 10 million cells of the Ehrlich ascite carcinoma. Three days later they received a general exposure of 800 r with the RUT-200 installation (15 ma,

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ACCESSION NR: AP4010764

A10.5 mm filter, dose 41 r/min). Timidine-H^3 (for tagging TH^3, 3 curies/mmol) was introduced into peritoneum in portions of 5 micro - curies. Radioautographs of the ascite liquid smears were made and the conclusion is that both chemical inhibitors and radiation block the transition from phase G_2 to M. Both chemical agents are radio- mimetics. Only sarkolysine acts directly on the DNA synthesis, and the $G_1 \longrightarrow$ S transition is only caused by radical process inhibitors. No such reactions were observed after radiation. Blocking of G_1, S and G_2 phases delays cell division for 24 hours and changes the phase distribution of cell population during the following period. Inhibitors of radical reactions and radiation also influence the second generation of the S and G_2 phases, respectively. Sarcolysine delays cell multiplication for 5 days. These after effects are of great importance for chemio- and radio-therapy. Gratitude is ex- pressed to N.M. Emanuel, corresp. member AN SSSR for discussion of results. Orig. art. has 4 figures, no formulas, no tables.
ASSOCIATION: Institut khimicheskoy fiziki, AN SSSR (Institute of Chemical Physics, AN SSSR)
SUBMITTED: 11Jul63 · DATE ACQ: 10Feb64 ENCL: 00
SUB CODE: CH, PH NO REF SOV: 002 OTHER: 010
Card 2/2

LiPCHIMSKI, A.P   BULGARIA

BULGARIA / Analytical Chemistry. General Topics.   E-1

Abs Jour   : Ref Zhur - Khimiya, No 4, 1958, No 10949

Author   : A.P. Lipchinski
Inst   : Institute of Chemistry and Technology.
Title   : New Fractional Method of Qualitative Investigation of
              Cations (in the presence of AsO_2^-, AsO_4^{3-} and PO_4^{3-}).

Orig Pub   : Godishnik Khim.-tekhnol. in-t, 1954, 1, 59-130

Abstract   : The cations are divided in the proposed method into the
              following groups in accordance with the possibility of
              their simultaneous detection: 1/ Ba^{2+}, Sr^{2+} and Mg^{2+};
              2/ Sb^{3+}, Sb(5), Bi^{3+} and Cu^{2+}; 3/ K and Na; 4/ Pb^{2+},
              Hg_2^{2+} and Ag^+; 5/ Hg(2+), Co^{2+}, Ni^{2+} and Cd^{2+}; 6/ Cr^{3+},
              Al^{3+}, Sn^{2+}, Zn^{2+} and Sn(4+). The advantages of the me-
              thod are the possibility of detecting cations at low
              concentrations, independent of the analysis course of
              nitrate, chloride and sulfate contents, the use of H_2S

Card 1/2

BULGARIA/Analytical Chemistry – General Topics   E-1

Abs Jour : Ref Zhur – Khimiya, No4, 1958, No 10949

as a basic reagent is not necessary, the possibility of
carrying out the major part of reactions with solutions
and not with precipitates; the analysis celerity. A
complete analysis takes 2.5 to 3 hours. The disadvantages
of the method are: the ions are detected after the dilution
of a solution in the course of the analytical separation,
no group reagents, the impossibility to use the method for
the detection of a series of rare metals at the present
stage of its study.

Card   : 2/2

Lipchinskiy, A. P

BULGARIA/Analytical Chemistry - Analysis of Inorganic   E
Substances.

Abs Jour   : Ref Zhur - Khimiya, No 8, 1958, 24702

Author   : Lipchinskiy, A.P.

Inst   : Chemico-Technological Institute.

Title   : Fractional Detection of Chromate-Ions.

Orig Pub   : Godishnik khim.-tekhnol. in-t, 1955 (1956), 2, No 1, 79-
              85

Abstract   : Description of a method for detecting chromate ions in
              the presence of AsO_4^{3-}, BO_3^{3-}, Br^-, BrO_3^-, Cl^-, ClO^-,
              ClO_3^-, ClO^-, CN^-, CO_3^{3-}, CH_3COO^-, F^-, $Fe(CN)_6^{4-}$, IO_3^-,
              MnO_4^-, NO_3^-, PO_4^{3-}, SiF_6^{2}, SiO_3^{2} and SO_4^{3-}, which is
              based on precipitation of $PbCrO_4$, after the removal of
              interfering ions from weak nitric acid solution by the
              action of a 10% solution of $AgNO_3$ or of a saturated

Card 1/2

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BULGARIA/Analytical Chemistry - Analysis of Inorganic Substances.   E-2

Abs Jour   : Ref Zhur - Khimiya, No 8, 1958, 24702

solution of $AgNO_3$ or of a saturated solution of $Ba(NO_3)_2$. in some instances both reagents are added to bring about complete precipitation of the interfering ions. After 0.5 minute following addition of the reagents to the boiling solution the precipitate is filtered off and 0.5 ml of saturated solution of $Pb(NO_3)_2$ are added to the clear filtrate. If the solution being analyzed contains MnO_4^-, the latter is reduced to Mn^{2+} with $NaNO_2$. The described method permits to detect $7 \cdot 10^{-5}$ g of $Cr_2O_7^{2-}$ in 1 ml solution. In the opinion of the author the reaction can also be used for a fractional detection of Pb^{2+} in a nitric acid solution.

Card 2/2

BULGARIA/Analytic Chemistry. Analysis of Inorganic   E
            Substances.

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77271.

Author   : Lipchinski Al., Yordanov B.
Inst   : Institute of Chemistry and Technology.
Title   : Detection of Mn^{4+} by Method of Internal Electrolysis
           with Deposition of Manganese Dioxide on Anode.

Orig Pub: Godishnik Khim.-tekhnol. in-t, 1956 (1957), No 1,
          77-82.

Abstract: The method used previously for the determination of
          Tl (RZhKhim, 1957, 77345; 1958, 77240) was used for
          the detection of Mn^{4+}. The cathode process proceeds
          according to the equation $PbO_2 + 4H^+ + SO_4^{2-} +
          2e = PbSO_4 + 2H_2O$, and the anode process proceeds
          according to the equation $Mn^{4+} + 2H_2O - 2e = MnO_2$

Card   : 1/3

BULGARIA/Analytic Chemistry. Analysis of Inorganic   E
Substances.

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77271.

$+ 4H^+$. The solution to be analyzed is neutralized
with dilute Na_2CO_3 solution until its reaction is
weakly acid (to pH = 4 to 5.8 according to γ -
dinitrophenol indicator), filtered, the filtrate
is heated to 60-70°, a small amount of NH_4OH is
added, the case and the Pt electrode are put
into the solution and the electrolysis is started.
A yellowish precipitate of MnO_2 is forming on
the anode, if Mn^{2+} was present; if no precipi-
tate was formed in 15 min., then there is no
Mn^{2+} in the solution. The detectable minimum
is 0.8 , 10^{-2} g of Mn per ml. The presence of
Ag^+, Al^{3+}, As(5+), Ba^{2+}, Be^{2+}, Bi^{3+}, Ca^{2+}, Cd^{2+};

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BULGARIA/Analytic Chemistry. Analysis of Inorganic
          Substances.

E

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77271.

Co^{2+}, Cr^{3+}, Cs^-, Cu^{2+}, Fe^{3+}, Hg^{2+}, K^+, Li^+, Mg^{2+}, Na^+, NH_4^+, Ni^{2+}, Pb^{2+}, Rb^+, Sr^{2+}, Tl^{3+}, Ti^{4+}, UO_2^{2+}, Zn^{2+}, $Zr(4+)$, MoO_4^{2-}, NO_3^-, SO_4^{2-}, VO_3^-, and WO_4^{2-}, as well as of small amounts of Cl^- does not interfere. The quantitative determination of Mn is also possible; in such a case, electrolysis is carried out 30 to 45 min. - T. Levi.

Card   : 3/3

BULGARIA/Analytic Chemistry. Analysis of Inorganic Substances.   E

Abs Jour: Ref Zhur-Khin., No 23, 1958, 77227.

Author   : Zagorchev B., Lipchinski Al., Sheytanov Khr., Yordanov B.
Inst   : Institute of Chemistry and Technology.
Title   : New Modification of Internal Electrolysis Method. II.
           Zinc Determination.

Orig Pub: Godishnik Khim.-tekhnol. in-t, 1956, (1957), No 1,
          217-220.

Abstract: A new modification of the internal electrolysis
          method (report I, RZhKhim, 1957, 4678) was used
          for Zn determination. Na amalgam prepared by
          electrolyzing NaOH saturated solution with 3 a at
          6 v is used as material for making the anode. A
          cellulose case with a collodium cover kept about
          1 hour in saturated Na_2SO_4 solution alkalized with

Card   : 1/2

NaOH is used at the analysis. Concentrated NaOH
solution is added with stirring to the $ZnSO_4$
solution until the reaction is weakly alkaline,
the mixture is diluted with water to from 70 to
80 ml, and the internal electrolysis is carried
out with a copper-clad Winkler's electrode as
the cathode connected with the amalgam anode.
Under such conditions, about 50 mg of Zn is de-
posited on the cathode in about 45 min. The re-
lative error is about 0.3% with 5 to 100 mg of
Zn. - T. Levi.

Card   : 2/2

BULGARIA/Analytic Chemistry. Analysis of Inorganic   E
          Substances.

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77245.

Author : Lipchinski Al.
Inst   : Institute of Chemistry and Technology.
Title   : New Method of Fractional Detection of Lead Ions.

Orig Pub: Godishnik Khim.-tekhnol. in-t, 1956 (1957), No 1,
         271-278.

Abstract: The disadvantages of the sulfate reaction used for
        Pb^{2+} detection are discussed. A new method of frac-
        tional Pb^{2+} detection based on the low solubility
        of $PbCrO_4$ in dilute HNO_3 is described. HNO_3 is
        added to 2 ml of the solution to be analyzed up to
        pH = 4.6 (in the presence of a great amount of

Card   : 1/3

BULGARIA/Analytic Chemistry. Analysis of Inorganic
                Substances.

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77245.

E

HNO_3, diluted Na_2CO_3 solution is added to the
solution to be analyzed until the necessary pH
is attained), then about 0.3 g of granulated Sn
is added, all is boiled 5 min. shaking it during
the boiling, filtered, and 10%-ual K_2CrO_4 solution
is added drop by drop to the filtrate shaking it
all the time. A yellow precipitate of $PbCrO_4$ is
forming in the presence of Pb^{2+}. If there was more
than $0.3 \cdot 10^{-2}$ g per ml of Ba^{2+}, the liquid is
decanted and about 1 ml of 10%-ual NaOH solution is
added to the precipitate, which is boiled, cooled
and filtered. In the presence of Pb^{2+}, $PbCrO_4$ is
precipitated by acidifying the filtrate with con-
centrated acetic acid. The detectable minimum is

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BULGARIA/Analytic Chemistry. Analysis of Inorganic
        Substances.   E

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77245.

$1.4 \cdot 10^{-5}$ g of Pb^{2+} per ml. The presence of Ag,
Al^{3+}, $As(3+)$, $As(5+)$, Ba^{2+}, Be^{2+}, Bi^{3+}, Ca^{2+},
Co^{2+}, Cr^{3+}, Cs^+, Cu^{2+}, Fe^{3+}, Hg^{2+}, Hg^{2+}, K^+,
Li^+, Mg^{2+}, Mn^{2+}, Na^+, NH_4^+, Ni^{2+}, Rb^+, $Sb(3+)$, $Sb(5+)$,
$Sn(2+)$, $Sn(4+)$, Sr^{2+}, Tl^{3+}, Tl^{3+}, $Tl(4+)$, Zn^{2+}, NO_3^- and
Cl^- do not interfere. The analysis duration is less than
10 min. - T. Levi.

Card   : 3/3

BULGARIA/Analytic Chemistry. Analysis of Inorganic   E
          Substances.

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77328.

Author : Lipchinski Al.
Inst   : Institute of Chemistry and Technology.
Title   : Detection of Iodine and Bromine Ions in Mixture
          of I^-, Br^- and Cl^- by Method of Internal Electro-
          lysis.

Orig Pub: Godishnik Khim.-tekhnol. in-t, 1956 (1957), No 1,
          309, 318.

Abstract: A method of I^- and Br^- detection in mixtures of Cl^-,
          Br^- and I^- based on internal electrolysis with
          anion oxidation to free I_2, Br_2 and Cl_2 on a neutral
          electrode is described. The used apparatus is
          similar to that described earlier (RZhKhim, 1957,

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BULGARIA/Analytic Chemistry. Analysis of Inorganic   E
          Substances.

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77328.

          4678, 77345; 1958, 17545, 24690). 1 to 2 drops of
          concentrated starch solution and about 0.5 g of solid
          KCl are added to 2 ml of the solution to be ana-
          lyzed. A collodion case with PbO_2 and dilute H_2SO_4
          and a Pt-wire anode connected with the PbO_2 by a coke
          electrode are sunk into the solution. The case and
          the Pt anode are taken out from the solution and,
          if the solution was not colored blue, they are sunk in
          that solution again for 2 to 2.5 min. and taken out
          again; if the blue color did not appear again, the
          absence of I^- is assumed to be proven. Under the
          described conditions, the solution color becomes
          yellow in the presence of Br^-. For the detection of
          Br in the presence of I^-, electrolysis should be

Card   : 2/3

                              85

BULGARIA/Analytic Chemistry. Analysis of Inorganic   E
Substances.

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77328.

carried out without interruptions (it is re-
commended to use a fresh sample and to eliminate
I^- by preliminary boiling with NO_x^- in acid
medium). The detectable minimum of I^- is 5 .
10^{-5} g at the border dilution of 1 : 100,000
and the ratios I^- : Br^- = 1 : 10,000 and I^- : Cl^-
= 1 : 30,000; the detectable minimum of Br is
5 . 10^{-4} at the border dilution of 1 : 40,000
and the ratio Br^- : Cl^- = 1 : 3,000. - T. Levi.

Card   : 3/3

COUNTRY   : Bulgaria   E-2
CATEGORY   :

ABS. JOUR. : RZKhim., No.   1959, No. 86146

AUTHOR   : Lipchinskiy, Al.; Yordanov. B.
INST.   : Chemical-Technological Institute
TITLE   : Permanganatometric Determination of Fe^{3+} by
              Its Prior Reduction by the Method of
              Internal Electrolysis
ORIG. PUB. : Godishnik Khim.-tekhnol. in-t, 1957 (1958),
              4, No 1, 1-5

ABSTRACT   : Description of permanganatometric determi-
nation of Fe^{3+} by means of a prior reduction of Fe^{3+} by the
internal electrolysis method in a Kolosov-Lur'ye unit
(Promstandart SSSR, Tsvetnyye Metally, Vyp. 45). Reduction
of Fe^{3+} to Fe^{2+} by the method of internal electrolysis is
effected without difficulty in the presence of all ions
the potential of which is lower than that of Zn, and also
in the presence of Ni, Co, and Cd. Error of determination
of Fe does not exceed 0.3%. -- Authors' summary.

CARD:

/C/

COUNTRY   : Bulgaria   E-1
CATEGORY   :

ABS. JOUR. : RZKhim., No.   1959,   No. 2014

AUTHOR   : Lipchinskiy, Al.
INST.   : Chemical-Technological Institute
TITLE   : Oxidation Processes in the Method of Internal
              Electrolysis and Their Utilization in
              Chemical Analysis
ORIG. PUB. : Godishnik Khim.-tekhnol. in-t, 1957 (1958),
              4, No 1, 7-11
ABSTRACT   : It was found that oxidation processes, in
the method of internal electrolysis, occuring at the inert
electrode, permit to separate at the anode, in addition to
Tl_2O_3, oxides of $Mn(4+)$, $Pb(4+)$, $Ni(3+)$, and also to carry
out oxidation of halides. The possibility is noted, of
utilizing of the ascertained facts in qualitative and
quantitative analysis. -- Author's summary.

CARD:

                          37

COUNTRY   : Bulgaria   E-2
CATEGORY   :

ABS. JOUR.   : RZKhim., No.   1959,   No. 86125

AUTHOR   : Lipchinskiy, Al.; Krysteva, M.
INST.   : Chemical-Technological Institute
TITLE   : Detection of Molybdenum in Ore Analysis by
                the Flavitskiy-Isakov Method.

ORIG. PUB.   : Godishnik Khim.-tekhnol. in-t, 1957 (1958),
                4, No 1, 13-18

ABSTRACT   : A study of the thosulfate-, sulfuric acid-,
and thiocyanate-reaction for Mo detection in ore analysis
by Flavitskiy-Isakov method. It was found that the most
suitable and most sensitive reaction for detection of Mo
in polymetallic ores is the reaction with $NH_4CNS(KCNS)$ +
+ $SnCl_2$; the sensitivity of this reaction is of 10 γ (the
sensitivity of the reaction with H_2SO_4 is of 160 γ).
                              Authors' summary.

CARD:

99

LIPCHINSKIY, A.

417. Determination of thallium by the method of internal electrolysis by anodic precipitation of tervalent thallium oxide. A. Lipchinskii (Chem.-Tech. Inst., Sofia). Zhur. Anal. Khim., 1957, 12, 711-63-86.—A membrane is prepared from...

AUTHOR: Lipchinskiy, Al.   SOV/75-13-4-4/23

TITLE: Oxydation Processes in the Method of Internal Electrolysis
                  and Its Application in Chemical Analysis (Okislitel'nyye
                  protsessy v metode vnutrennego elektroliza i ikh ispol'zovaniye
                  v khimicheskom analize)

PERIODICAL: Zhurnal analiticheskoy khimii, 1958, Vol. 13, Nr 4, pp. 402-
                  407 (USSR)

ABSTRACT: All variants of the method of internal electrolysis known up
                  to now are based on the separation of the reduced element at
                  an indifferent electrode (Refs 1-13). In the internal electro-
                  lysis, however, the element to be determined can also be sepa-
                  rated at an indifferent electrode in an oxydized state. For
                  this purpose a reducible electrode (e.g. PbO_2) is combined with
                  an indifferent electrode (e.g. platinum). The electrode system
                  obtained is placed into a solution, which contains the ion
                  which exhibits oxydizing properties and which is to be deter-
                  mined. Thus, by separation thallium was determined as Tl_2O_3
                  (Ref 14). The ions of other metals, which in the normal electro-
Card 1/3   lysis are separated at the anode (Ref 15), can also be deter-

SOV/75-13-4-4/29

Oxydation Processes in the Method of Internal Electrolysis and Its Appli-
cation in Chemical Analysis

mined by internal electrolysis. The oxydizing agent is kept in
a case (catholyte). The possibility of such determinations is
demonstrated in the present paper. The same device as in the
determination of thallium as Tl_2O_3 was used the only difference

being that a carbon electrode was dipped into the catholyte,
which had a device for fastening the platinum electrode. It be-
came evident that by the internal electrolysis at an indifferent
anode apart from Tl_2O_3 also the oxides of quadrivalent man-

ganese and lead and of trivalent nickel can be separated. Be-
sides, this is a method for oxydizing separately the ions of
halogen hydracids. It was also shown that a quantitative de-
termination of manganese by its separation at the anode as
$MnO_2 \cdot 2H_2O$ is possible. The average error of this determination
is $\pm$ 0,7 %. A method of identifying Mn^{2+} was described, further-
more a method of detecting the ions of iodine and bromine in a
mixture of J^-, Br^-, and Cl^-. It was shown at the example of the
separated oxydation of J^-, Br^-, and Cl^- that the oxidative in-

Card 2/3   ternal electrolysis can be regarded as method of electrolytic

SOV/75-13-4-4/29

Oxydation Processes in the Method of Internal Electrolysis and Its Application in Chemical Analysis

oxydation with a controlled anode potential. The elaborated methods of determination are described in detail; it is exactly explained how to carry them out. There are 2 figures, 1 table, and 20 references, 6 of which are Soviet.

ASSOCIATION: Khimiko-tekhnologicheskiy institut, Sofiya. (Bolgariya.) (Chemical and Technological Institute, Sofia , Bulgaria)

SUBMITTED: January 9, 1957

1. Electrolysis—Equipment   2. Electrolysis—Applications
3. Metals—Oxidation   4. Metals—Determination   5. Electrodes
—Performance   6. Chemical analysis

Card 3/3

Distr: 4E2c

Determination of lead by internal electrolysis with anodic deposition of lead dioxide. A. Lipchinski and M. Krstewa (Chem. Technologisches Inst., Sofia, Bulgaria). Z. anal. Chem. 164, 246-50(1958); cf. C.A. 53, 3975c.—To no more than 30 ml. of sample contg. up to 17 mg. Pb in a 100-ml. beaker add 20% KOH soln. dropwise until the ppt. dissolves, add a few drops in excess, and dil. to 40 ml. Dip a paper Soxhlet extn. thimble which has been treated with collodion and filled with concd. $K_2S_2O_8$ soln. into the Pb soln. Place a Pt gauze electrode around the thimble, a Cu rod in the thimble, and connect the electrodes. Stir the anolyte with a stream of air. After 30 min. at 50–60° test a drop of anolyte with $K_2Cr_2O_7$ in dil. HOAc for the absence of Pb. Wash the Pt electrode with water, EtOH, and Et_2O, dry, and weigh the deposit of PbO_2. The deposit does not change wt. on heating up to 220°.   K. G. Stone

LIPCHINSKIY, A.P.; KULEV, I.I.

Internal electrolysis without a diaphragm. Report No.4:
Quantitative determination of nickel. Zhur. anal. khim.
19 no.3:357-362 '64.   (MIRA 17:9)

1. Khimiko-tekhnologicheskiy institut, Burgas, Bolgariya.

LIPCHINSKIY, K.V.

Plants--Nutrition

Importance of artificial feeding in altering the nature of plants. Les. khoz. No 5, 1952

9. **Monthly List of Russian Accessions**, Library of Congress, ___August___ 1953/2 Unclassified.

KOZINETS, P.V.; KARTASHOV, I.N.; KAGANOVSKIY, A.I.; GESYUK, Z.M.;
    SASIN, I.F.; NAYMAN, G.M., inzh., retsenzent; LIPCHUK, A.M.;
    kand. tekhn.nauk, red.; GALANOVA, M.S., red. izd-va; EL'KIND,
    V.D., tekhn. red.

[Technology of diesel locob tive construction]Tekhnologiia
teplovozostroeniia. [By] P.V.Kozinets i dr. Moskva, Mashgiz,
375 p.   (MIRA15:10)
        (Diesel locomotives—Design and construction)

LIPCIK, A.

Neurologic findings in tuberculous meningitis. Lek.listy 6 no.7-8:
211-213 1 Apr 1951.   (CLML 20:9)

1. Of the Neurological Clinic of Palacky University, Olomouc
(Head--Prof. Sercl, M.D.) and of the Masaryk State Lung Sana-
torium in Sumperk (Head--Docent Vojtek, M.D.).

LIPCINSKI, G.

"Extra-radicular feeding, an important factor for the transformation of plant characteristics", p. 47 (Analele Romano-Sovietice. Seria Silvicultura-Industria Lemnului Si A Hartiel., Series a II-a, v. 7, No. 15, Sept/Oct. 1952 Bucuresti)

SO: Monthly List of East European Accessions,/Library of Congress, September   1953, Uncl. Vo. 2, No 9

KÖNIG, T.; MAROSVARI, I.; LIPCSEY, A.

Pyruvate metabolism in liver mitochondria. Acta physiol. acad.
sci. Hung. 24 no.4:391-402 '64

1. Institute of Biochemistry, Medical University, Budapest.

L. 1981-66

ACCESSION NR: AT5024289   HU/2505/64/025/002/0125/0131

AUTHOR: Konig, T.; Lipcsey, A.; Szabados, Gy.

TITLE: Effect of 2,4-dinitrophenol on the pyruvate metabolism of liver mitochondria

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 25, no. 2, 1964,
125-131

TOPIC TAGS: organic nitro compound, phenol, biochemistry, biologic metabolism,
liver

ABSTRACT: [English article, authors' English summary modified] Oxygen con-
sumption with citrate and alpha-ketoglutarate as substrates is increased by
2,4-dinitrophenol (DNP) at concentrations close to 10^{-5}M. Contrary to this,
pyruvate utilization and oxygen consumption with pyruvate as substrate were
diminished at similar DNP concentrations in our experiments. At the same time,
the conversion   of pyruvate into acetoacetate was more extensive than in the
control whereas the citrate accumulation was inhibited. With increasing con-

Card 1/2

L 1981-66

ACCESSION NR: AT5024289

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centrations of DNP, a further decrease was observed in pyruvate utilization, oxygen consumption and citrate synthesis. Both the DNP inhibition of pyruvate utilization and citrate synthesis, and its activation of acetoacetate production were diminished by small amounts of fumarate. In the presence of both substrates, DNP enhanced the oxygen consumption. Thus, in addition to its inhibiting effect on pyruvate utilization, DNP increases its conversion to acetoacetate and at the same time, especially in the presence of fumarate, renders the oxidation of acetyl-CoA (formed from pyruvate) more complete in the citric acid cycle. This means that DNP shows a ketogenic effect with respect to the pyruvate metabolism of liver mitochondria. The probable mechanism of this effect is discussed.   "We are indebted to Prof. V. Szekessy-Hermann for her interest throughout this study." Orig.art. has: 1 figure, 3 tables.

ASSOCIATION: Institute of Biochemistry, University Medical School, Budapest

SUBMITTED: 00   ENCL: 00   SUB CODE: LS, OC

NR REF SOV: 000   OTHER: 0011   JPRS

   Card 2/2 DP

41669

AUTHOR: Lipcsey, László

TITLE: A method of brazing aluminum

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 10, 1962, 61, abstract
10E373 P (Hung. pat., no. 148419, September 30, 1961)

TEXT: In the suggested method of brazing Al the protective coating is
applied to Al cleaned from the oxide film, and the coating is removed at the
moment of solder application. The cleaning of Al from oxides is carried out in
a 10% NaOH solution. Al is covered then with an amalgam layer, and for this
purpose it is dipped into Hg placed immediately under NaOH solution. The amal-
gam protects the clean Al surface from oxidation. When Al covered with amalgam
is immersed into the solder fusion the amalgam evaporates and a strong metallic
bond of Al with the solder is formed. When a quick solder is used the recom-
mended fusion temperature is 280 - 320°C. When large pieces are brazed NaOH
solution is applied to the joint, then Hg is applied from the solution and after
the amalgam has been formed, the solder is applied by any known method. The
solvent rests are removed with 10% HNO_3.
[Abstracter's note: Complete translation]   V. Zhuravska
Card 1/1

LIPCZNSKI, Andrzej

A special case of a stallion as carrier of influenza virus. Zeszyty problemqwe post nauk roln no.31:97-100 '61.

1. Panstwowa Stadina Koni, Golejowko.

BC

Q - 1. 8

Thermal treatment of Meswiska phosphorites. S. Lipczynski (Przemysl
Chem., 1937, 21, 193—199).—The ratio of citrate-sol. to inso. P_2O_5 in
phosphorite is raised from 35.7 to 63% by heating at 1350—1450°, with
rapid cooling, and using phosphorite meal passing through a No. 60 sieve.
A 92%-sol. product is obtained when 33% of NaCl is added to the phosphorite,
whilst addition of $CaSO_4$ raises the assimilable P_2O_5 content to a max. of
80% with 20% of $CaSO_4$. Heating with charcoal has no effect.   R. T.

Possibility of concentrating Polish phosphates by flotation. Stefan Lipczyński. *Przegląd Chem.* 2, 103 5 (1938).
E. Józefowicz

ASM·SLA METALLURGICAL LITERATURE CLASSIFICATION

Possibilities for the thermal fabrication of Polish phos-
phates. Stefan Lipczyński. *Przegląd Chem.* 2, 111-14
(1938).

F. Józefowicz

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

Modern trends in working of low-grade phosphates.
Stefan Lipczynski. *Przemysl Chem.* 22, 138-43(1938).—
Review, with 39 references.   A. C. Zachlin

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BC

&.I.8

Enrichment of Niemirisko phosphorites. S. LIPOSYŃSKI (Przemysl Chem., 1938, 22, 433—437).— The results given by various types of mills used for grinding phosphorite, and the cost and conditions of flotation of the meal, are described.   R. T.

PROCESSES AND PROPERTIES —P25

New Application of Rotation. S. Lipczynski. Przemysl
Chem. 23, 140-16(1939).—A review with 21 references.
Edward A. Ackermann

METALLURGICAL LITERATURE CLASSIFICATION

LIPCZYNSKI, S

1448.   REMOVAL OF NAPHTHALENE FROM GASES IN COKE OVEN PLANT.
Kalinowski, B. and Lipczynski, S.   (Gaz, Woda, Tech. Sanit. (Gas, Water,
Sanit. Engng, Warsaw), Mar. 1956, 98-102;   abstr. in Ass. tech. Industr. Gaz
France Circ. bibliogr., 15 July 1956, (7), 18).   Naphthalene formation during
coking and methods of removing it, and work in progress on its removal from gas
are dealt with.   Conclusions are reached with regard to improvement of
naphthalene removal by adjusting oven operation, initial and final cooling of
the gas, benzol removal, by adopting high efficiency naphthalene removers
operating under pressure, and by control of activation of the fixed naphthalene
by antraucene oil.

1564.   WAYS OF IMPROVING THE OUTPUT OF BENZOL IN COKING PLANTS,
Lipczyński, S.   (Koks, Smola, Gaz (Coke, Tar, Gas, Stalinogrod), Jul./Sept.
1956, vol. 1, 90-92).   (...).

PATENTS

POLAND / Chemical Technology, Chemical Products and Their   J-0
           Application - Treatment of solid mineral fuels

Abs Jour   : Referat Zhur - Khimiya, No 2, 1958, 5826

Author   : Lipczynski Stefan

Inst   : Not given

Title   : Amelioration of the Quality of Tar at Coal Carbonization
              Plants

Orig Pub   : Koks, smola, gaz, 1957, 2, No 2, 55-57

Abstract   : Discussion of practical measures conserning changes in
              technological conditions of operation of the departments of
              chemical products recovery at Polish coal carbonization
              plants, with the view of improving the quality of the tar.

Card 1/1

POLAND / Chemical Technology. Chemical Products and   H
          Their Applications. Chemical Processing of
          Solid Fossil Fuels.

Abs Jour: Ref Zhur-Khimiya, 1959, No 4, 13156.

Author : Linczynski, Stefan.
Inst   : Not given.
Title   :

Card 1/1

92

LIPCZY"SKI, S.
_____

Remarks on the correct operation and repair of coke ovens. p. 37

KOKS, SMOLA, GAZ. Katowice, Poland. Vol. 4, no. 1, January/February 1959

Monthly list of East European Accession (EEAI) LC, Vol. 8, no. 7, July 1959

Uncl.

LIPCZYNSKI, Stefan
_____

Ammonia compounds for coking: their present state and perspectives

1. Zjednocsanie Hutnictwa Zelaza i Stali.

(Ammonia)

LIPCZYNSKI, Stefan

Hydrating and classification of coke. Koks smola gaz 6 no.6:Bulletin: 57-64 '61.

LIPE, L., master.

The shop committee is the organizer of competition. Sov.profsoiuzy
3 no.4:42-44 Ap '55.
                                                              (MIRA 8:5)

1. Predsedatel' tsekhkoma profsoiuza namotochnogo tsekha Rizhskogc
radiozavoda im. A.S.Popova.
          (Socialist competition) (Trade unions)
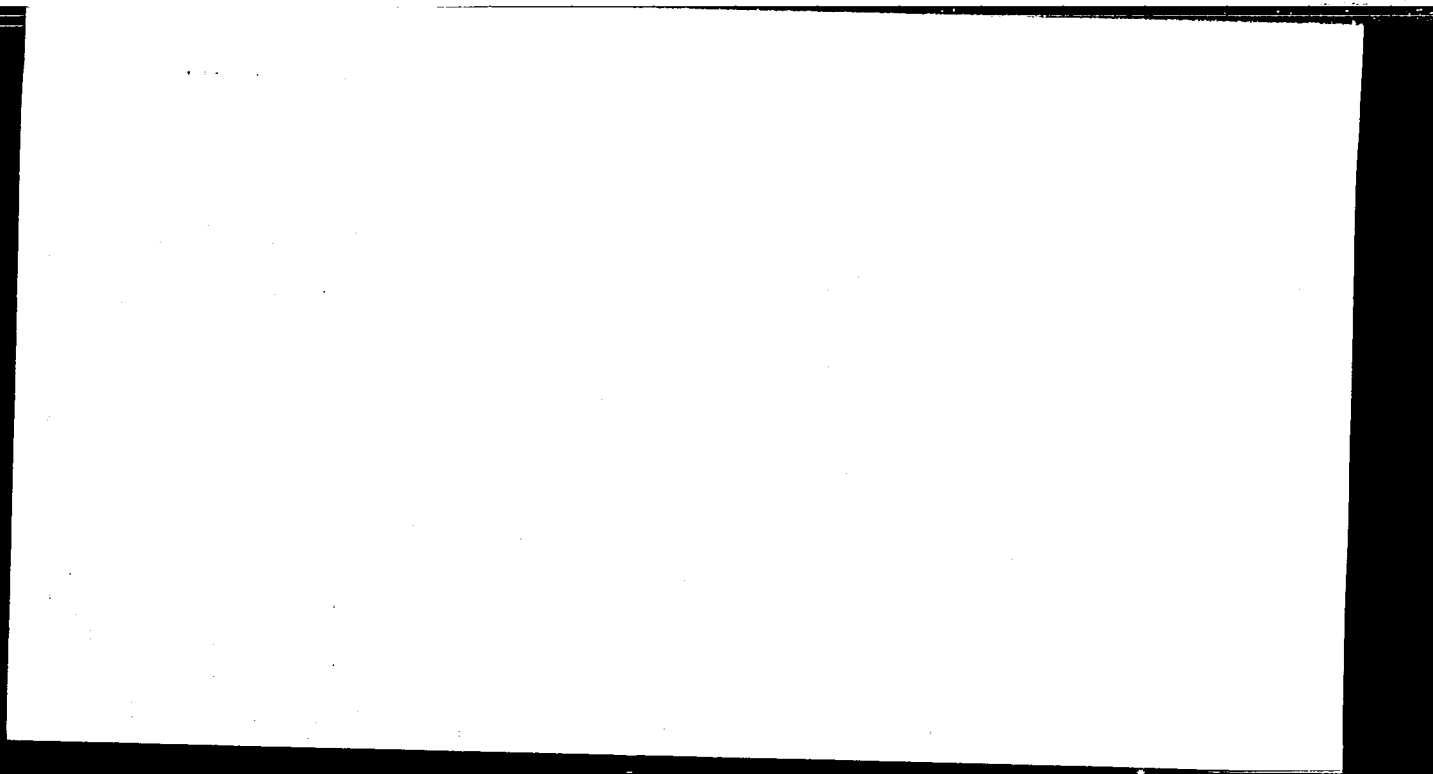
LIPECKI, Janusz

Herbicides in horticulture.   Postepy nauk roln 10 no.1:67-80
Ja-F '63.

1. Katedra Ogrodnictwa, Wyzsza Szkola Rolnicza, Lublin,
Kierownik: prof. dr.Stanislaw Zaliwski.

LIPECKI, Juliusz

Lenin's electrification idea as leading slogan of an interesting
exhibition of the Museum of Engineering of the Chief Technical
Organization in Warsaw. Energetyka Pol 17 no.8:245-249 Ag '63.

LIPECKI, J.

The role and tasks of the foremen in the improvement of production.
Mechanik 35 no.6:342 Je '62.

Kierowniki duu, dr R.Kadłubowski.
(BLOOD TRANSFUSION exper)
(BILE ACIDS AND SALTS pharmacol)
(SHOCK exper)

BALAGUROV, B.A.; LIPELIS, L.M.

Studying the discharge process in ignition systems having a powerful capacitor discharge. Nauch.dokl.vys.shkoly; elektromekh. i avtom. no.1:171-180 '58.   (MIRA 11:11)
                    (Electric discharges)

GOVOR, N.I.; LIPEN', A.A.

Diseases of the cardiovascular system in the White Russian S.S.R.
Zdrav. Bel. 7 no.8:17-21 Ag '61. (MIRA 15:2)

1. Iz otdela meditsinskoy statistiki Ministerstva zdravookhraneniy
BSSR.
　　(WHITE RUSSIA—CARDIOVASCULAR SYSTEM—DISEASES)

LIPENKOV, Ya. Ya.

The use of accumulated city rag wastes for the production of new fabrics. B. A. Krutkov and Ya. Ya. Lipenkov. *Shvstyanoe Delo* 17, No. 4, 33–42(1938). *Chem. Zentr.* 1938, II, 3875.—The conditions for obtaining the longest possible fibers in the sepn. of rags into fibers for the production of artificial wool are discussed, as is also the importance of washing the material.   M. G. Moore

LIPENKOV, Yakov Yakovlevich; DERYUGIN, S.M., retsenzent; GUSEVA, Ye. M.,
redaktor; EL'KINA, E.M., tekhnicheskiy redaktor.

[General technology of wool.] Obshchaia tekhnologiia shersti. Izd.
2-e ispr. i dop. Moskva, Gos. nauchn.-tekhn. izd-vo Ministerstva
promyshlennykh tovarov shirokogo potrebleniia SSSR, 1954. 172 p.
     (Wool industry)   (MLRA 8:3)

LIPENKOV, Yakov Yakovlevich; GOL'DENBERG, M.K., retsenznet; SEGAL', N.M.,
red.; KHAKNIN, M.T., tekhn.red.

[Comb spinning of wool] Grebennoe priadenie shersti. Moskva, Gos.
nauchno-tekhn.izd-vo lit-ry po legkoi promyshl., 1957. 396 p.
(MIRA 11:5)

(Woolen and worsted manufacture)

GUSEV, Vladimir Yegorovich; LIPENKOV, Ya.Ya., kand.tekhn.nauk, retsenzent;
    GLOTSER, L.M., kand.tekhn.nauk, retsenzent; SEGAL', N.M., red.;
    SHAPENKOVA, T.A., tekhn.red.

    [Raw materials and primary processing of wool] Syr'e i pervichnaia
    obrabotka shersti. Moskva, Izd-vo nauchno-tekhn.lit-ry RSFSR,
    1960. 277 p.   (MIRA 13:12)
        (Wool)   (Textile fibers, Synthetic)

LIPENKOV, Ya.Ya.

Determining stretch deformations in textile fibers. Izv.vys.
ucheb.zav.; tekh.tekst.prom. no.5:39-44 '61.   (MIRA 14:11)

1. Leningradskiy tekstil'nyy institut imeni S.M. Kirova.
                        (Textile fibers--Testing)

LIPENKOV, Yakov Yakovlevich; MUKHANOV, P.Ya., retsenzent; KHRUSHCHEV,
    G.G., retsenzent; GORDEYCHIK, G.M., red.; VINOGRADOVA, G.A.,
    tekhn. red.

[General technology of wool] Obshchaia tekhnologiia shersti. Izd.3.,
perer. i dop. Moskva, Rostekhizdat, 1962. 331 p. (MIRA 15:7)
            (Woolen and worsted manufacture)

LIPENKOV, Ye., inzh.

Automatic switching-on of auxiliary airchute fans. Muk.-elev.
prom. 28 no.5:24-26 My '62.   (MIRA 15:5)

1. Glavnyy energetik Leningradskogo ordena Lenina mel'kombinata
im. S.M.Kirova.
                    (Flour mills—Electric equipment)
                    (Pneumatic-tube transportation)

LIPENSKY, JAN

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and
Their Application, Part 3. - Food Industry.   H-27

Abs Jour : Ref Zhur - Khimiya, No 7, 1958, 23065

Author   : Jan Lipensky
Inst   :
Title   : New Machinery for Bakeries.

Orig Pub : Prumysl potravin, 1957, 8, No 8, 424-425

Abstract : Description of automatically recording weighing machines
             for loose materials, of kneading machines and sieves for
             sifting.

Card 1/1

LIPENSKY, Josef

CZECHOSLOVAKIA / General Division, Problems of Teaching   A-8

Abs Jour: Ref Zhur-Biologiia, No 5, 1958, 18945

Author   : Lipensky Josef

Inst   : —

Title   : How We Conducted Experiments on the Cultivation of Various Types of Corn

Orig Pub: Prirod. vedy skole, 1957, 7, No 4, 376-378

Abstract: No abstract

Card 1/1

CUHAREC, L.; LIPENSKI, Ileana, dr.

Good treatment conditions during the winter period, too. Munca
sindic [7] no.1:48-50 Ja '63.

1. Presedinte al comitetului sindicatului -Statiunea balneo-
climaterica Vatra-Dornei (for Lipenski).

LIPENTSEV, I., general mayor.

We are training fighters of the ideological front. Komm. Vooruzh. Sil
4 no.17:27-32 S '64.

(MIRA 17:12)

LIPEROVSKAYA, Ye. S.

"On the Feeding of Ostracoda," Zool. Zhur., 27, No. 2,

1948. Chair. Hydrobiology, Inst. Fish Inst., -c1948-.

LIPEROVSKAYA, Ye.S.

Effect of selenium-bearing sewage on Daphnia magna and D. pulex.
Trudy Gidrobiol. ob-va 9:206-213 '59.   (MIRA 12:9)

1.Moskovskiy oblastnoy nauchno-issledovatel'skiy sanitarno-
gigiyenicheskiy institut.
    (Branchiopoda) (Selenium--Toxicology) (Sewage)

10.8000
26.2330
24.2120

86910
S/056/60/039/005/027/051
B006/B077

AUTHOR: Liperovskiy, V. A.

TITLE: Anisotropy in the Expansion of Longitudinal Electro-
             acoustic Oscillations in a Drifting Plasma

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
             Vol. 39, No. 5(11), pp. 1363-1366

TEXT: The authors consider the propagation of plane longitudinal
oscillations in a plasma which consists of ions and electrons, drifting in
opposite directions in a neutral gas. The density of the neutral gas is
supposed to be such that the frequency of the collisions of ions and
electrons with atoms is of the same order as the oscillation frequency
in a coordinate system which is at rest relative to the drift. In order
to describe the oscillations, the hydrodynamic approximation of A.A.
Vlasov is used, but the collisions are additionally taken into considera-
tion. It is assumed when superimposing the stationary drift of electrons
and ions with electroacoustic oscillations that at each collision with a
neutral atom the charged particle will loose a fraction of its momentum

Card 1/3

86910

Anisotropy in the Expansion of Longitudinal   S/056/60/039/005/027/051
Electrcacoustic Oscillations in a Difting Plasma B006/B077

that is connected with the collective vibrational motion. The charged
particles will experience an acceleration in the direction of the drift if
the pulse. is against the drift direction, and a deceleration if both
are in the same direction. With the help of this model the experimentally
observed anisotropy in the propagation of low frequency electroacoustic
oscillations in a low pressure gas discharge plasma can be explained
theoretically with a hydrodynamic approximation. The dispersion equation
is derived and using a special form it describes the anisotropic effect as
experimentally observed, besides giving the phase velocity of the wave
in good agreement with the measured value. (A numerical example is given).
It can be derived from the dispersion equation that in the one-dimensional
case the oscillations of a given frequency will propagate under certain
conditions from the cathode to the anode with an increasing amplitude
and from the anode to the cathode with a decreasing amplitude. The
anisotropy is mainly due to the combined action of collisions between the
charged particles and atoms and the constant drift rate. The presence of
boundaries intensifies the anisotropy. The author thanks Professor
A. A. Vlasov for his interest and the discussions of results and A. A.
Zaytsev for his help. G. F. Filimonov is mentioned. There are 4 Soviet

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86910

Anisotropy in the Expansion of Longitudinal   S/056/60/039/005/027/051
Electroacoustic Oscillations in a Drifting Plasma B006/B077

references.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Power Engineering
               Institute)

SUBMITTED: June 11, 1960

Card 3/3

41402

S/089/62/013/004/011/011
B102/B108

21720C

AUTHORS: Novikov, Iu. V., Liperovskiy, V. A., Polyhkova, A. A.

TITLE: Radioactive fallout during precipitations (snow)

PERIODICAL: Atomnaya energiya, v. 13, no. 4, 1962, 385 - 387

TEXT: Measurements of the radioactivity of layered snow samples (of 32
by 42 cm area) are reported from investigations carried out in 1959 and
1960 under the guidance of V. F. Oreshko. The precipitations are classi-
fied into clean and dirty snow according to the brightness of the layers.
The liquid volume was determined for each individual layer, whence the
amount of precipitation was calculated in mm. · After the samples had been
filtered the activity of the solid residue was determined with a БФЛ-Т -25
(BFL-T-25) end-window counter. An aliquot portion of the snow was vaporized,
the solid residue was also analyzed with an end-window counter. The in-
tensity of the radioactive fallout was calculated from

$A = 4.5 N 1^{(t_n - t_m)} / KS \Delta t_n$, where N is the count rate (pulses/min); t_n is the date on

which the major part of precipitations of the n-th layer fell; t_m is the
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Radioactive fallout ...

3/089/62/013/004/011/011
B102/B108

date on which the activities were measured; λ is the decay constant $(\lambda=0.693/\bar{T}$, where $\bar{T}$ is the mean half-life of the fission fragments); $\dot{K}$ is the beta-recording efficiency; S-is the stencil area expressed in cm^2; and Δt_n is the period of snowfall of the n-th layer. The measured values are plotted in activity-time diagrams for various points of observation in urban and suburban areas. The observations were made at three points in each area, and over entirely different periods of time. The activity of the solid phase is compared with that of the aliquot portion for each individual period of observation. The values obtained in the urban area differed greatly (up to 41.2 mCu/km^2). In the suburban area, however, fluctuations were insignificant, the maximum activity being 1.6 mCu/km^2. All these data apply to the solid phase. Supposing equal conditions of snowfall prevailed in both the areas under consideration, it is possible to obtain regression lines empirically: $Y_x - f(x)$ and $X_y - f(y)$, where x is the average intensity of radioactive fallout during precipitation, expressed in $mCu/km^2 \cdot 24$ hrs, and y is the depth of snowfall given in mm/24 hrs. The values of x obtained for the urban and the suburban were 0.32y + 0.06 and 0.26y + 0.02, respectively. There are 2 figures.

SUBMITTED: January 11, 1962
Card 2/2

L 9000-66   EWT(1)/ETC/EPF(n)-2/EWG(m)   IJP(c)   AT

ACC NR: AP5027265   SOURCE CODE: UR/0207/65/000/005/0015/0022

AUTHORS: Liperovskiy, V. A. (Moscow); Tsytovich, V. N. (Moscow)

ORG: none

TITLE: On the decay of longitudinal Langmuir plasma oscillations into ion-acoustic waves

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 5, 1965, 15-22

TOPIC TAGS: turbulent plasma, nonlinear theory, nonlinear plasma, unstable plasma, plasma heating

ABSTRACT: In view of the importance of nonlinear processes arising as a result of the high intensity of oscillations excited by beam instabilities, of the interest in proposed turbulent heating schemes, and in connection with a number of other phenomena, several theoretical investigations of nonlinear plasma behavior have recently been carried out. This subject is further investigated in the present paper, in which several one-dimensional self-consistent problems concerning the decay or combination of Langmuir and ion-acoustic waves are considered. It is shown that instability in a turbulent spectrum with a high level of excited Langmuir waves leads both to the excitation of ion-acoustic waves and to the appearance of sidebands separated by a frequency on the order of ω_{o1} from the electron plasma

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L 9000-66

ACC NR: AP5027265

0

frequency ω_{oe}. This qualitative change in the wave spectrum may serve as a direct indication of the excitation of ion-acoustic waves in the system. Orig. art. has: 2 figures and 34 formulas.

SUB CODE: 20/ SUBM DATE: 20Jul64/ ORIG REF: 011

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L 52026-65   EPF(n)-2/EPA(w)-2/EWT(1)/EWG(m)   Po-4/Pi-4/Pz-6/Pab-10   IJP(c)   WH/

ACCESSION NR: AP5012064   AT   UR/0057/65/035/005/0958/0961

AUTHOR: Liperovskiy, V.A.

TITLE: Concerning the oscillations of an electron-ion plasma in a strong electric field

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 5, 1965, 958-961

TOPIC TAGS: plasma electric field, plasma stability, plasma oscillation

ABSTRACT: When a plasma is held in a uniform electric field the ions and electrons drift in opposite directions. The system becomes unstable when the drift velocity exceeds the thermal velocities and energy is lost to longitudinal oscillations. O.Buneman (Phys. Rev., 115, 503, 1959) and others have treated this problem with the aid of the dispersion equation for the case in which the product kE of the wave number by the electric field strength is small. In the present paper the problem is discussed on the basis of the two-fluid hydrodynamic model for arbitrary values of kE with the assumption that the drifts are uniformly accelerated. A fourth order differential equation is derived for the Fourier component of the electron density, from which the usual dispersion equation follows in the limit $kE = 0$. The

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ACCESSION NR: AP5012064

correction due to drift acceleration to the usual expression for the logarithmic increment (the imaginary part of the frequency) is derived for small but finite values of kE. The increment is large when the drift velocity is close to the propagation velocity, but the system does not remain long in the resonance region and the total energy lost to the oscillations during passage through resonance decreases with increasing drift acceleration (electric field strength). Expressions are derived for the Fourier component of the electron density which are asymptotically valid for large kE. When E exceeds a critical value, the energy lost to the oscillations during passage through resonance is negligible. "The author expresses his gratitude to L.M.Kovrizhnykh, I.S.Danilkin, and V.N.Tsytovich for a valuable discussion." Orig. art. has: 19 formulas.

ASSOCIATION: Fizicheskiy institut im. P.N.Lebedeva AN SSSR, Moscow (Physics Institute, AN SSSR)

SUBMITTED: 17Apr34   ENCL: 00   SUB CODE: ME

NR REF SOV: 002   OTHER: 001

Card   2/2

L 26615-66   EWT(1)/ETC(f)/EPF(n)-2/EWG(m)   IJP(c)   GG/AT

ACC NR: AP6013931   SOURCE CODE: UR/0207/66/000/002/0116/0119

AUTHOR: Liperovskiy, V. A. (Moscow); Tsytovich, V. N. (Moscow)   13

ORG: none   B

TITLE: Nonlinear conversion of electromagnetic waves to ion-acoustic plasma oscilla-
tion

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 2, 1966, 116-119

TOPIC TAGS: plasma oscillation, electromagnetic wave phenomenon, acoustic wave,
acoustic absorption

ABSTRACT: The authors consider the self-consistant problem of conversion of electro-
magnetic waves with a frequency much higher than the critical frequency to ion-acoust-
ic oscillations in a plasma assuming that a Langmiur wave is generated as the trans-
verse electromagnetic wave decays and that the ion-acoustic wave is then generated by
the Langmiur wave. The problem is solved with regard to ion-acoustic wave absorption
as well as in the one-dimensional approximation. Examples of two-stage decay are giv-
en to illustrate application of the expressions derived in the paper. One-dimension-
al quasistationary boundary problems are also considered and solutions are given for
nonlinear equations which determine the spatial distribution for the number of waves
in the spectrum during the decay process. Orig. art. has: 13 formulas.

SUB CODE: 20/   SUBM DATE: 03Aug65/   ORIG REF: 005/   OTH REF: 000
Card 1/1 JW

L 28490-66   EWT(n)-2/EWT(l)/EEC(F)/EWG(m)   IJP(c)   AT

ACC NR: AP6013110

SOURCE CODE: UR/0057/66/036/004/0575/0587

AUTHOR: Liperovskiy, V.A.; Tsytovich,V.N.

ORG: Physics Institute im. P.N.Lebedev, Moscow (Fizicheskiy institut)

TITLE: On the oscillation spectra of a weakly turbulent plasma

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 4, 1966, 575-587

TOPIC TAGS: turbulent plasma, unstable plasma, plasma oscillation, plasma stability, dispersion equation, nonlinear plasma, nonlinear theory

ABSTRACT: In an unstable plasma, there can arise a quasi-equilibrium state of weak turbulence with a self-consistent distribution of particles and waves. Such quasi-stationary states have been previously discussed for different types of waves (in-stabilities) by the authors (ZhTF, 35, 773, 1965; PMTF, No.5, 15, 1965). Here they discuss the stability of quasistationary states of different types with respect to excitation of slow plasma oscillations (which are called "second sound") and derive the spectra of the second sound waves. The calculations are based on equations given by L.M.Kovrizhnykh and V.N.Tsytovich (ZhETF, 46, 2212, 1964; 47, 1454, 1964), which describe the effects of the nonlinear interaction of the waves in the plasma and in which spontaneous effects are neglected compared with induced effects. Dispersion equations are derived for second sound in different quasistationary states and con-ditions for the stability of the states are given. It is shown that the quasistationary

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UDC: 533.9

L 28496-66

ACC NR: AP6013110

state noted by V.I.Petviashvili (DAN SSR, 153, 1295, 1963) and B.B.Kadomtsev (Voprosy teorii plasmy, vyp.4, str.285, Gosatomizdat, 1964), which arises from nonlinear scattering on plasma ions of ionic sound generated by an electric current in a plasma, can be unstable with respect to excitation of second sound, and that the quasistationary states associated with decay of transverse waves into longitudinal waves and of longitudinal waves into sound can be stable. The one-dimensional quasistationary state associated with decay of longitudinal waves into sound is found to remain stable in the presence of three-dimensional perturbations. The authors thank V.P.Silin for his interest in the work. Orig. art. has: 41 formulas.

SUB CODE: 20   SUBM DATE: 16Apr65   ORIG. REF: 023   OTH REF: 001

Card 2/2

L 45919-66   EWT(1)   IJP(c)   AT

ACC NR: AP6028604

SOURCE CODE: UR/0057/66/036/008/1339/1350

AUTHOR: Kovrizhnykh, L.M.; Liperovskiy,V.A.; Tsytovich,V.N.

ORG: Physics Institute im. P.N.Lebedev, AN SSSR, Moscow (Fizicheskiy institut AN SSSR)

TITLE: Nonlinear production of plasma waves by a beam of transverse waves. 2.

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 8, 1966, 1339-1350

TOPIC TAGS: mathematic physics, nonlinear effect, nonlinear plasma, plasma wave, plasma wave absorption, transverse wave, longitudinal wave

ABSTRACT: One of the authors has previously discussed the passage through an iso-
thermal plasma of a parallel monochromatic beam of transverse waves whose frequency
f is much higher than the Langmuir frequency f_0 of the plasma and the accompanying
decay of the transverse waves into longitudinal plasma waves V.N.Tsytovich, ZhTF,
35, No.5, 773, 1965). In the present paper these calculations are extended to the
case when the transverse wave beam is not strictly parallel, but has a small angular
divergence. The present calculations are based on the results of the earlier ones,
and notation employed in the earlier paper is sometimes used in the present discussion
without definition. It is found that there is a critical angular spread of the beam
given by $\theta_c = (f_0/f)^{3/2}$. When the angular spread of the beam is small compared with
θ_c the results previously obtained for a strictly parallel beam are valid. When the

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UDC: 533.9

L 45919-66

ACC NR: AP6028604   /

angular spread exceeds θ_c the rate of decay to longitudinal waves decreases with in-
creasing beam spread and eventually becomes smaller by a factor of f_0/f than the
rate of decay in the case of a strictly parallel beam. Formulas are derived for the
rate of decay and for the directions with respect to the beam in which the longitu-
dinal waves propagate, and the passage to the limiting case of zero beam divergence
is carried through in an appendix. The effect of a longitudinal magnetic field is
discussed. The magnetic field has little effect on the critical beam divergence,
but there appear new decay modes into waves having the Larmor frequency. The decay
into longitudinal waves of the Larmor frequency is always slower than the decay into
Langmuir waves, however, and does not contribute significantly to the absorption of
transverse waves in the plasma. Orig. art. has: 56 formulas.

SUB CODE: 20   SUBM DATE: 04Sep65   ORIG. REF: 014   OTH REF: 002

Card 2/2   rjs

ACC NR: AP6022072   SOURCE CODE: UR/0141/66/009/003/0469/0478

AUTHOR: Liperovskiy, V. A.; Tsytovich, V. N.

ORG: Institute of Physics im. P. N. Lebedev, AN SSSR (Fizicheskiy institut AN SSSR)

TITLE: Nonlinear interaction of waves in plasma in the presence of strong transverse waves

SOURCE: IVUZ. Radiofizika, v. 9, no. 3, 1966, 469-478

TOPIC TAGS: plasma wave, plasmon, plasma research

ABSTRACT: The effects are considered of the induced dispersion of longitudinal waves in plasma, in the presence of strong transverse waves. It is proven that the spectrum of longitudinal waves shifts toward higher wave numbers k (lower $v_f^{\perp}$) also in the case of transverse waves in a homogeneous isotropic plasma. It is found that, in the process of 4-plasmon interaction, strong compensating effects (similar to those occurring in wave dispersion by particles) are possible. The interaction of Langmuir-type waves is used as an illustrating example. Orig. art. has: 2 figures and 52 formulas.

SUB CODE: 20 / SUBM DATE: 06Sep65 / ORIG REF: 009 / OTH REF: 001

Card 1/1   UDC: 533.951